Claims

What is claimed is:

5   1.   A home gateway system comprising:

a transceiver capable of establishing a wireless local loop connection;

a voice processing system coupled to the transceiver, the voice 10   processing system capable of storing a message from an incoming call; and

a caller identification processing system coupled to the transceiver, the caller identification processing system determining a telephone number of the incoming call and routing the incoming call 15   to the voice processing system if the telephone number belongs to a screened group of telephone numbers.

2.   The home gateway system of claim 1, further including a processor coupled to the transceiver, the processor determining if the 20   incoming call is received during an existing call and posting an indicia of the incoming call to a user when the incoming call is received during the existing call.

3.   The home gateway system of claim 2, wherein the voice processing system includes a controller and a speech synthesizer, the controller detecting the incoming call and directing the speech synthesizer to play a plurality of options to a caller.

4.   The home gateway system of claim 3, further including a switch, the switch directing the incoming call to one of a plurality of internal telephone lines based on a response to the plurality of options.

5.   The home gateway system of claim 1, further including a voice bridge.

6.   The home gateway system of claim 5, further including a controller coupled to the transceiver, the controller capable of redirecting the incoming call to a predetermined forwarded telephone number.

7.   The home gateway system of claim 6, further including a smart card interface coupled to the controller.

8.   The home gateway system of claim 1, further including a router coupled to the transceiver.

9.   The home gateway system of claim 8, further including a home automation and security system coupled to the router.

10.   The home gateway system of claim 8, further including a television processing system coupled to the router and receiving a plurality of television signals.

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11.   A method of operating a home gateway system comprising the steps of:

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(a) receiving an off-hook signal;

(b) receiving a voiced command;

(c) when the voiced command is a call request, receiving a voiced name;

(d) performing a speech recognition of the voiced name and

15   translating the voiced name into an associated telephone number; and

(e) initiating a telephone call over a wireless local loop to the associated telephone number.

12. The method of operating the home gateway system of claim 11, further including the steps of:

(f) when the voiced command is a voice mail request, announcing a plurality of voice mail options;

(g) receiving a voiced option;

(h) performing a speech recognition of the voiced option and implementing a voice mail option associated with the voiced option.

13. The method of operating the home gateway system of claim 11, further including the steps of:

(f) when the voiced command is an email request, converting a title of each of a plurality of emails from a text to an audio signal and playing the audio signal of the title for each the plurality of emails;

(g) receiving a voiced selection indicating which of the plurality of emails a user wants to hear;

(h) converting a body of a selected email from a text to an audio signal and playing the audio signal.

14. The method of operating the home gateway system of claim 13, wherein step (f) further includes the steps of:

(f1) initiating a communication session over the wireless

5 local loop to an email provider;

(f2) receiving the plurality of emails.

15. The method of operating the home gateway system of claim 11, further including the steps of:

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(f) when the voiced command is a forwarding request, requesting a user voice a code;

(g) performing a speaker verification on the code to verify a user's identity.

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16. The method of claim 15 further including the steps of:

(h) when the user's identity is verified, receiving a voiced command to forward a user's calls to a telephone number;

20 (i) when an incoming call is received, redirecting the incoming call to the telephone number.

17. A method of operating a home gateway system, comprising the steps of:

(a) receiving an off hook signal;

5   (b) determining if an external telephone line request has been received;

(c) when the external telephone line request is received, determining if all of a plurality of external telephone lines are in use;

(d) when all of the plurality of external telephone lines are in

10   use, performing a derive lines procedure; and

(e) connecting a call in response to the external telephone line request.

18. The method of claim 17, wherein step (d) includes the

15   steps of:

(d1) selecting one of the plurality of external telephone lines carrying a communication session;

(d2) sending a compressed communication session

20   command to a base station; and

(d3) compressing an outgoing portion of the communication session.

19. The method of claim 17, further including the steps of:

(f) when all of the plurality of external telephone lines are not in use, connecting a first telephone call;

5 (g) receiving a conference call command;

(h) connecting a second telephone call through a voice bridge; and

(i) connecting the first telephone call through the voice bridge.

10 20. The method of claim 17, further including the steps of:

(f) when the external telephone line request is not received, determining if an intercom call command is received;

(g) when the intercom call command is received, connecting a 15 calling line with another internal phone line.

21. The method of claim 17, further including the steps of:

20 (f) when the external telephone line request is not received, determining if a voice mail command is received;

(g) when the voice mail command is received, playing a plurality of options.

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22. A home gateway system comprising:

a switch connected to an external telephony channel and an internal telephony channel;

a processor connected to the switch, the processor sending and receiving messages from the switch; and

a caller identification system connected to the processor, the caller identification system receiving an identify query from the processor.

23. The home gateway system of claim 22, further including a voice processing system coupled to the processor, the voice processing system capable of storing a voice mail.

24. The home gateway system of claim 23, further including a voice bridge connected to the switch.

25. The home gateway system of claim 24, further including a router coupled to the switch.

26. The home gateway system of claim 25, further including a smart card interface connected to the processor.

27. The home gateway system of claim 26, further including a home automation and security system coupled to the router.

28. The home gateway system of claim 27, further including a television processing system coupled to the router and coupled to a television channel.

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29. The home gateway system of claim 28, further including a wireless local loop transceiver connected to the external telephony channel.

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30. A home gateway system comprising:

a wireless transceiver capable of establishing a wireless local loop connection with a base station;

5   a switch connected to a demodulated output of the wireless transceiver;

a processor connected to the switch receiving a query from the switch and sending a response to the switch;

a smart card interface connected to the processor, the smart 10   card interface capable of receiving a setup instructions from a smart card;

a voice processing system connected to the processor, the voice processing system including a voice mail system, a voice recognition system, a speaker verification system and a speech synthesis system;

15   a caller identification system connected to the processor, the caller identification system coupled to a display;

a voice bridge connected to the switch;

a router connected to the switch, capable of routing a computer data among a computer devices and onto a telephony network;

20   a home automation and security system, capable of sending and receiving a messages through the router or the telephony network; and

a television processing system connected to the router and receiving a television signal, the television processing system capable of 25   sending an information to a television.

31. A method of operating a home gateway system comprising the steps of:

5   (a) receiving an incoming call;

(b) determining a telephone number associated with the incoming call;

(c) determining if the telephone number belongs to a set of preferred telephone numbers;

10   (d) when the telephone number does not belong to the set of preferred telephone numbers, requesting a caller to speak their name;

(e) recording a spoken name; and

(f) playing the recording of the spoken name.

15   32. The method of claim 31, wherein step (e) further includes the steps of:

(e1) performing a speech recognition process on the spoken name;

20   (e2) determining if the spoken name belongs to a set of preferred callers;

(e3) when the spoken name does not belong to the set of preferred callers, proceeding to step (f).

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33. The method of claim 32, further including the steps of:

(e4) when the spoken name does belong to the set of preferred callers, determining if the spoken name belongs to a set of owners;

(e5) when the spoken name belongs to the set of owners, performing a speaker verification routine;

(e6) when the caller has been verified, providing the caller a plurality of options.

34. The method of claim 33, wherein the step of providing the caller with the plurality of options includes providing the caller access to a home monitoring and security system and to a voice mail system.

35. The method of claim 34, wherein the caller voices a command for the home monitoring and security system or the voice mail system to implement.

36. The method of claim 31, further including the steps of:

(g) when the telephone number does belong to the set of preferred telephone numbers, announcing a call.

37.   The method of claim 36, further including the steps of:

(h) when the call is not answered within a predetermined time, announcing a plurality of options to the caller;

(i) when the caller selects a control option, requesting the caller state their name;

(j) performing a .speech recognition on a spoken name;

(k) when a recognized name belongs to a set of owner names, performing a speaker verification routine.